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DR-982
March 1979

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METEOROLOGICAL DATA REPORT

12831D LANCE MISSILE NO. 3306, ROUND NO. 323 ESL (2 NOVEMBER 1978)

BY

WSMR METEOROLOGICAL TEAM

DOC FILE COPY

ATHOSPHERIC SCIENCES LABORATORY WHITE SANDS MISSILE RANGE, NEW MEXICO



ECOM
UNITED STATES ARMY ELECTRONICS COMMAND

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BEFORE COMPLETING FORM REPORT DOCUMENTATION PAGE 3. RECIPIENT'S CATALOG NUMBER I. REPORT NUMBER 2. GOVT ACCESSION NO. DR-982 TITLE (and Subtitle) 12831D LANCE MISSILE 90 3306, ROUND NO. 323 ESI (2 Nove muber ) Number Number B. CONTRACT OR GRANT NUMBER(s) WSMR METEOROLOGICAL TEAM DA TASK 11665702D127-02 10. PROGRAM ELEMENT, PROJECT, TASK 9. PERFORMING ORGANIZATION NAME AND ADDRESS REPORT DATE 11. CONTROLLING OFFICE NAME AND ADDRESS US ARMY ELECTRONICS COMMAND MAROH 1979 ATMOSPHERIC SCIENCES LABORATORY WHITE SANDS MISSILE RANGE, NEW MEXICO 14. MONITORING AGENCY NAME & ADDRESS(If different from Controlling Office) 15. SECURITY CLASS. (of this report) UNCLASSIFIED US ARMY ELECTRONICS COMMAND DECLASSIFICATION/DOWNGRADING FT. MONMOUTH, NEW JERSEY 16. DISTRIBUTION STATEMENT (of this Report) APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED 17. DISTRIBUTION STATEMENT (of the ebetract entered in Block 20, if different from Report) AGCESSION 100 ECOM-DR-982 ATTORICE 18. SUPPLEMENTARY NOTES Meteorological data rept. BISTRIBUTION /AVAILABILITY 19. KEY WORDS (Continue on reverse side it necessary and to AVAIL ONLY SPECIAL 1. BALLISTICS 2. METEOROLOGY 3. WIND ABSTRACT (Continue on reverse side H necessary and identity by block number) METEOROLOGICAL DATA GATHERED FOR THE LAUNCHING OF 12831D LANCE, MISSILE NUMBER 3306, ROUND NUMBER 323 ESL, ARE PRESENTED IN TABULAR FORM.

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Ancompater-Massured WTD Speed and Direction. Pole No. 1. Sound 223 ISL at 1910 TWS Mat ----

----- 184 284 0 01 3s 323 ESE breight, of 5199

The Asia light Stignt Truck Level (lakes) letter | 1816 |

#### INTRODUCTION

12831D Lance, Missile Number 3306, Round Number 323 ESL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1006 HRS MST, 2 November 1978. The scheduled launched time was 1000 HRS MST.

#### DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	3989	FEET/MSL
PRESSURE	889.2	MBS
TEMPERATURE	17.8	°C
RELATIVE HUMIDITY	74	*
DEW POINT	13.1	ос
DENSITY	1055	GM/M <sup>3</sup>
WIND SPEED	CALM	MPH
WIND DIRECTION	CALM	DEGREES
CLOUD COVER	10	Sc

TABLE I. SURFACE OBSERVATION TAKEN AT LC-33 1010 HRS MST/2 NOVEMBER 1978.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	000	00
100	300	02
200	300	05
300	300	07
400	300	09
500	300	11
600	305	11
700	310	10
800	315	10
900	320	10
1000	325	10
1100	325	12
1200	325	14
1300	325	17
1400	325	19
1500	325	21
1600	324	21
1700	323	21
1800	322	21
1900	321	21
2000	320	21

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	323	20
2200	326	20
2300	329	19
2400	332	19
2500	335	19
2600	337	19
2700	339	19
2800	341	20
2900	343	21
3000	345	21
3100	BALLOON LOST	IN CLOUDS
3200	SECTION AND L	
3300	MR 37174.69	
3400	18105 300	
3500		
2600		
3700	_03597-031W	
3800	9 109 FO GN1 H	
3900		
4000	DESTRUCTION OF THE PROPERTY OF	
4100		

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO.1 RELEASED FROM LC-33, AT 1000 HRS MST/2 NOVEMBER 1978 12831D LANCE, MISSILE NO. 3306, ROUND NO. 323 ESL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,302.67 Y = 185,283.13 Z = 3,989.47

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	000	. 00
100	255	02
200	255	04
300	255	06
400	255	08
500 .	255	210
600	254	09
700	253	08
800	252	08
900	251	07
100	250	06
1100	260	06
1200	270	07
1300	280	.07
1400	290	07
1500	300	08
1600	307	08
1700	314	09
1800	321	09
1900	328	10
2000	335	10
15 010 3	2 00 990	29. ESL

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	335	10
2200	335	09
2300	335	09
2400	335	08
2500	335	08
2600	336	08
2700	337	08
2800	338	08
2900	339	08
3000	340	08
3100	BALLOON LOST	IN CLOUDS
3200	BALLOON LOST	IN CLOODS
3300		
3400		
3500		
3600		
3700		
3800		
3900		
4000		
4100	STENENSTAN .VI	BUGAT
4100	128310 14	
	237.881.08000	MICK

TABLE III. PILOT-BALLOON MEASURED WIND DATA, RELEASE NO. 2 RELEASED FROM LC-33, AT 1010 HRS MST/2 NOVEMBER 1978 12831D LANCE, MISSILE NO. 3306, ROUND NO. 323 ESL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,302.67 Y = 185,283.13 Z = 3,989,47

APPROXIMATELY: 1 MILE SHOUTH OF LAUNCHER.

-20	
	CALM
-10	CALM
-00	CALM
+10	CALM
+20	CALM
+30	CALM

TABLE IV. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 1 RELEASED FROM LC-33, AT 1010 HRS MST/2 NOVEMBER 1978 12831D LANCE/ROUND NUMBER 323 ESL

WSTM COORDINATES

X = 485,874.29 Y = 185,958.90 Z = 4,018.74

T-TIME (SEC)	SPEED (MPH)	DIR
-30		CALM
-20		CALM
-10		CALM
-00		CALM
+10		CALM
+20		CALM
+30		CALM

TABLE V. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 2
RELEASED FROM LC-33 AT 1010 HRS MST/2 NOVEMBER 1978
12831D LANCE/ROUND NUMBER 323 ESL

WSTM COORDINATES X = 485,874,93 Y = 186,012.00 Z = 4,033.57

T-TIME (SEC)	SPEED (MPH)	DIR
-30		CALM
-20		CALM
-10		CALM
-00		CALM
+10		CALM
+20		CALM
+30		CALM

TABLE VI. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 3
RELEASED FROM LC-33, AT 1010 HRS MST/2 NOVEMBER 1978
12831D LANCE/ROUND NUMBER 323 ESL

WSTM COORDINATES X = 485,877.29 Y = 186,116.06 Z = 4,063.92

STATION ALTITUDE 3989-03 FEET MSL	2950 HRS MST	
ALTITUDE	78	ASCENSION NO. 717
TATION	2 NOV . 78	SCENSIO

SIC FEET MSL RS MST	SIGNIFICANT LEVEL DATA 3963025717 WHITE SANDS TABLE VII.
---------------------------	---

GEODETIC COORDINATES 32540543 LAT DEG 106.37033 LON DEG

0110000		3		
TRESSONE	ALTITUDE	- W		PERCENT.
MILLIBARS	SL FEE		ENTI	
00	989.		12.1	
850.0	19	13,5	4.1	00
00	. 648	7	8,3	77.0
68.	7956.	6	9.8	-
()	7		5.3	92.0
73.	1320.	. •		•
70.5	1679.		•	
61.2	203	•	9.4-	-
13.5	432	·	-18.2	23.0
1.50	439		p.97-	ů.
9.06	533	2.0	-25.3	•
4.59	6183.	•••	5	
0.50	.9564		-	•
	127	-14.2	-33.8	17.0
41.4	2483.	-15.5	+	
ca.a	45054	7	9	•
72.6	+667.	.55		18.0
53.0	7892.	27.	7.77	
34.5	9195.			
6.22	1675.	36.	2.64-	•
53.0	5749.	. 9		
27.6	7783.	.15		
2002	524.	55.		
5.3	3253.	.19		
6.0	6416.			
4.4	118			
9.4	331	-		
1.2	110	65.		
8	52552.7	-43.3		
0.0	162	5		

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-18

GEODETIC COORDINATES 32,40043 LAT DEG 106,37033 LON DEG

SIGNIFICANT LEVEL DATA WHITE SANDS

STATION ALTITUDE 3989.00 FEET MSL 2 NOV. 78 .950 HRS MST

ASCENSION NO. 717

REL.HUM. PERCENT DEGREES CENTIGRADE TEMPERATURE -58.8 PRESSURE GFONETRI MILLIBARS MSL FEET 60.080.2 73.8

-44.7 61735.5 0.66159 68526.6 73247.5 B7866.4 91475.5 74178.7 5005 30.00 16.9

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STATION AL	ALTITUDE 39	3989.93 FEE	ET MSL MST	10.186	UPPER AIR CAT 3C6C32C717 WHITE SANDS	17 A T A D D S		GEUDETIC 3224	C0080
	NO. 717	- 7.7	44534		TABL	H.			37033 10" DE
GEOMETRIC	PRESSURE	TEMP	PERATURE	, 'L'	DENSITI	SPEER OF	0	ATA	INDEX
ALTITUDE		AIR	DEMPOINT	PERCENT	GM/CUB1C	SOUND	DIRECTION	SPEFD	0.
1	MILLIBARS	DEGREES	- z		METER	202	الا الا	CO	KEFRACT 10N
3989.0	887.1	16.1	12.1	77.0	1562.3	9.4.99	0.	•	108606-1
40000			12.0		:	6:4.5	3		0
4500.0	871.0			•		663.	153.1	2.3	
3.0005	855.5	13.9	1001	77.6	1032.6	8-199	153.1	5 • 5	
5500+0	840.2		6.5		1016.5	1.199	153.1	8.2	2:5
400000			9.6	77.5	44.	9.099		10.0	0227
6530.3	810.4		9.8		983.2	1.097	161.9	12.9	
7303.0		11.9	4.6	79.2	9.196	4.659	161.9	14.3	
750007			9.8		953.8	658.2	158.9	7.51	6.
	767.4		8.6		1.046	959	163.2	15.2	•
9503•1	753.4	•	•	95.8	925.2	63	1179.1	3)	10.32257
900306			7.3			39	179.3		. 55
95000-9	726.2	7.9	9.9			. 459	~	17.7	5.4
# ac 20 1			6.9		:	653	192.6		~
30			5.3	0500	2.	9	-		~
.30	687.1		4.0		•	651.	<b>a</b>	2	. 43
. 27			0.1	79.7	•	651.	216.3	•	
123330-2						•	3	1.	27:3
. 23		3,7	-1.5	5.40	810.8	. 48.	9.77.	54.4	0
9000	:		++01-	-		647.	56.	-	0
13500.0	in		-13.9	30.4	0	949	224.3	-	-
200			-18.3	23.4	30.	6 + 4 • 8	- 7	31.5	8
3	5	7.0	-26.2		. 7	•	-12	27.8	
	-	•	: 2	•	*	.0	-17	•	1.000.1
SS		6.	h-52-	11.8	:	4	9.476		2.
376			15	12.7	•	643.	700	52.4	-
500				-	715.9	4 4	33.	ů	10-63163
30		-2.9	-27.3			•	15.	2445	19150 1
	537.3	-4.3		6.5.	n	0 3	234.6	20.3	5
	:		1.85-	14.1	•	637.3	236.3		10-00156

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6E0DETIC COORDINATES 32,40343 LAT DEG 106.37633 LOW DEG UPPER AIR DATA 3000340717 #HITE SANDS STATION ALTITUDE 3989-GD FEET MSL 2 NOV. 78 '950 HRS MST

ASCENSION NO. 717

					FR																									
INDEX OF REFRACTION	10.7.2153	-	+1.	* 1 4	**10001	:.	10-63140	-	10: 9:135	1 - 1 : 1 : 1 3 3	10.00131	-	10.6:126	10,03124		10.0012		-	-	-	1100011		1.000126	10001165	10/03/103	310	2	1. 2. 198		67.5
SPEED KHOTS			•	32.5	35.	•	-	1.		39.4		~				u;	46.6	40.0	8	47.1					47.1	47.	1.6+		52.1	3
DIRECTION S	-	7	4 3.	* + +	244.6	5.44.5	*	4 4	* *	245.B	243.8	25:01	5	51.	. 1 .	S	7	T	7	T		3	LT	2.0	. 10	·J	. 7	.75	91.	-
SOUND KNOTS	35.	633.9	32.	30		027.8	26.	20		23	22.	620.07	. 6 :	617.7	16.					615.03				6 04 · 4	. 2.		. 66	.8.	.96	98.
DENSITY S GM/CUBIC METER	76.		57.	647.7	6380	629.4		6:37 - 1	.06	567.2	573.2		560.7	7	•	+	•	•	1.		493.5	B 4 .	•	.00	454.3	In	*	437.2		54.
REACEST	14.5	14.8		15.7	16.2	16.7	17.6	17.0	17.3	18.5	19.9	21.4	22.6	23.7	21.9	20.1	18.4	2.8.	13.61	18.8	22.7	59.97	27.8	27.4	56.9	5002	1.92	23.9.0		
ERATURE DEMPOINT CENTIGRADE	N	-30.0	-31.4	-32.1	-32.7	-33.4	-34.0	-34.5	*	-35.2	12	-35.9	-36.3	7	-38.8	-46.6	-42.4	-43.3	:	2.44-	-43.5	-43.2	-43.7	0.44-	-46.2	-47.5	-48.8	2	52.	S
AIR AEGREES		8.8		-11.1	-1203	-13.5				8.91-		-19.3	-20.6	-21.9	-23.0	-24.2	-25.3	-26,2	-26.9	-27.7	-28.9	-33.9	-31.2	-32,5	-33.8	-35.1	-36.3	-37.5	-38.7	-39.0
PRESSURE	516.9	567.0	497.2	487.4	477.8	468.5	459.2	453.1	441.1	432.2	423.5	415.0	436.6	399.4	393.2	382.1	374.3	366.5	358.9	351.4	344.0	336.8	329.6	322.6	315.7	368.9	3,20.3	295.7	289.1	282.7
GEOMETRIC ALTITUDE MSL FEET	8500.	1930000	19500.0	0339	20550	21900-	1300.	220022	256C.												28502.5		.5034	30390.0	30500.0	_	1500.	1.0	32536 0	3262.
													11	,																

. AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE 4AS USED IN THE INTERPOLATION.

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ETIC COOKDINATES 37.45043 LAT DEG U6.37033 LON DEG	INDEX OF REFRACTION	10.55:193	7,	88000	3.63	417	10.20383	10.53282	18:	10.505.79	100 30077	10.22.076	3	-	_	1200	•	-17	•		_		_	•		1:57	W	13.54	5	
6E00ETIC 37.49 106.3	SPEEU	56.2	\$ 1		56.3			68.3	7.08	72.3	3.	•	75.3	75.5	73.8	2	73.2	73.3	75.7	77.3	73.5		75.5	71.6	46.7	62.6		55.7		-
	JIND DAT	251.5	-	9-1-2			4.5.5	253.07	In	25. • 3	2.19.5	2.48.7	247.7	2.16.7	245.6	2.44.5	243.6	242.7	242.7	243.0	243.5	5.44%	245.3	246.1	247.	247.1	247.3	246.4	214.9	243.3
04TA	SOUND KNOTS	593.6	•	0 0 0 0 0	. 6	90	584.6	. 9	581.5	580.1	~	17	576.6	575.5	574.3	572.9	571.6	573.2	568.8	5-1-5		640	545.4	504.9	4.3	563.9	-)	563.0	C	\$ 6
UPPER AIR DA 3C63323717 UMITE SANDS	DENSITY S GM/CUBIC METER	6.7.7	457.7		37.	336.03	373.6	367.0	363.5	353.9	347.	.:		327.3	-	311.08	•	. 7 3	297.1	6.142	205.3		;	20092	260.5	•	548.6	243.1	30.	227.
3	REL.HUM.	. 4 . 4	11.2.0	9 4 5 37 0 37	. 0																									
T MSL MST	ERATURE Deapoint Centigrade	-57.7	0	1.64.	2																									
9.CO FEE 952 HRS	TEMPER AIR SEGREES CE	-		2 +						-	52.	53.		55	55.	.95	57.	58.		61.			7		3		+			
TUDE . 71	PRESSURE MILLIBARS	276.5	27:3.4	258.5	252.8	247.1	241.5	. 230.7	233.6	225.3	220.3	214.9	239.9	205.0	238.2	195.5	190.8	186.2	181.8	177.5	173.2	159.0	164.9				6	S		
STATION ALTI Z NOV. 78 ASCENSION NO	GEUMETRIC ALTITUDE MSL FEET	350	34603•2	5000	5500.	36500.5	359	7.05.		900	on .	9:23.	5	00000	9500	1555.	1559.	20000	2500.	0	435050-	4000+	.005	5	4550000	4610000	6533.	10	5000	48036+3

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STATION AL	ALTITUDE 398	3969.CU FEET MSL	971.00	SCCCCC717	4 6 6		GEODETIC 32.40	COOK
2	10. 717						901	3 LON
GEOMETRIC	PRESSURE	A E	REL.HUN.	DENSITY	SPEED OF	NIN	DATA	LADEX
ALTITUDE MSL FEET	MILLIBARS	AIR DEAPOINT DEGREES CENTIGRADE	PERCENT	GM/CU31C	SOUND	DEGREESITA	SPEED K:: 2TS	OF KEFRACTION
85.00	u.	5.19-			40	7	: 5	75( v 3 v e 1
9000	132.1	62.			5.	239.0	•	5
.2756		-63.2		213.8	2	137.2	1.97	10-2:248
000	125.7	-		207.4	563.4	~	43.1	10.00047
6	122.	-64.9		2.,5.1	502.3	234.4	1	10-2-246
66	119	-		234.02	552.2		37.	
-	116.			194.8	562.9	241.0	0.40	7
14	=			137.5	563.6	245.3	31.6	10.00.042
25	=	-63.4		184.5	564.3		3 3	16:5:341
3.	108.			16,02	563.3	25-01	29.	-
33	135.	-64.1		176.2	5:3.2	25.03	5.7.	10-2-139
400	3			172.2	562.7	243.6	5.92	1 - 36.7.36
456C+	150.6	-65.3		169.4	502.1	244.0	4.5	10.00038
5000	98.			164.5	561.6	244.9	23.6	10.5.37
25	95.	.0		160.7	561.2	247.9	3.5.5	-
9009	93.	S		150.9	560.8	241.3	25.5	10.00035
65	91.			153.2		241.0	25.1	10.5.34
7966				144.7		8 2	25.	1
7530	. 9	\$		140.3	5.655	241.5	5000	10. 37. 33
.,				142.8	553.1	243.5	23.2	10.00032
8500	:	7.		134.4	258.7	245.6	1.62	16:36:01
2006	:			133.2	558.3	24304	2	10-3: 33
3056	8			1330%		1.765	18.	-
0000	•	3		124.9		256.7	1600	7
0000	+	-68.7		126.7	557.1	70,07	13.4	10.3.028
100	72.6	7		123.1	528.0	20002	4.01	.,
1500	•	.59		110.0	561.2	275.0	E • 5	1000000
12002					562.4	243.1	7.9	
25.	:	643		?	562.4	•	T .	10.00025
-000	65.7			104.0	562.3	325.5	4.5	1.000324

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. (::13

517.1.1.1

917:3.0

\*1:3: · \*1 100 ·

5 . 6 9.5 9.6 4.6 10000112

? . .

315 . 8

1.10.01.

. 07912

...

6.3 9.5

330.2

522.2

573.3

53.5

-50,6

33.3 31.7

77566.2

-56.7

-56.5

34.1

0.00391

766000-5

5.95-

34.9

334.2

573.5 573.4

1005

54.3

WIND DATA DEGPEES (TN) DIRECTION 3.5.23 3.2 35.5 73.9 35.6 20.8 14.9 17.5 15.2 353.9 355.4 343.9 5.29 5..3 41.7 17.5 357.8 352.3 354.66 349.4 19965 SPEEU OF 573.6 572.3 563.4 568.3 573.5 3.275 547.1 6.695 573.7 573.7 562.4 564.5 571.6 573.4 552.1 551.9 565.3 556.2 573.8 562.2 562.1 563.1 6.875 576.7 SOUND KHOTS UPPER AIR PATA WHITE SANDS 3060023717 47.2 92.4 81.5 30.00 51.5 107.3 9466 85.8 72.3 64.8 61.7 10701 94.8 89.9 76.3 74.3 7.2.3 9.99 63.2 6.02 20.4 90431 1.59 4000 REL. HUM. DENSITY GM/CUBIC METER PERCENT DEGREES CENTIGRADE DE WPOINT TEMPERATURE STATION ALTITUDE 3920.33 FEET MSL COSC HRS MST -59.2 6.69--57.9 -56.2 -56.3 6.49-0459--57.2 -56,5 -56.4 -61.3 -58.6 -56.3 6.49-0.59-1.59--64.7 -64.2 -63.7 -63.2 -62,6 -62.1 -62.4 6.65--555-AIR MILLIBARS PRESSURE 37.5 1.49 48.9 44.4 38.4 9.29 61.0 26.6 55.3 53.9 52.6 47.7 40.0 41.3 4..3 36.6 35.7 ASCENSION NO. 717 58.1 1.05 45.5 2 NOV . 78 6750000 GEOMETRIC 63569.2 6500009 661.35.3 \$1.35569 0.0000 71500-2 71500+0 730-00-3 40000+7 15.000.0 55055 MSL FEFT 6.60049 64500.3 3.03559 0.000999 720000 72500.0 7350000 67560.0 68530.3 . . 50069 25,56. 74556.5 ALTITUDE

. . . 4.3

1276310

10-02.324 ...5...23 10.20122

> 4.7 5.8 4.2

PEFRACTION

SPEED KNOTS

INDEX 90 . 67:21

3.8

3.4 3.7 4 . 4 5 . 2 3.0 0.9 7 . 3 B. 4 H . 'S . .

1 . 2 . 32" 61.77 91736C. 81000 ··

41: H · JE.17

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7 . 3

32:41543 LAT DEG 100.37033 LON DEG

GFODETIC COORDILATES

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STATION A	STATION ALTITUDE 3909.00 FF	99.80 FFET MSL		3060220717	SATA 17		GEODETIC	C COORDINATES
ASCENSION NO.	8 NO. 717	-950 HRS MST		WHITE SANDS	50		32	2643 LAT DE
GEOMETRIC	PRESSURE	TEMPERATURE	RFL.HUM.	DENSITY	SPEED OF	TAG GNI	11A	INDEX
ALTITUDE		AIR	PERCE'IT	GM/CUBIC	SOUND	UIRFCTION	SPFED	90
MSL FEET	MILLIBARS	30		METER	KNOTS	DEGREES(TW)	KNOTS	REFRACTION
78556.0	31.	-56.7		4.64	573.1	369.3	12.9	11.52611
790000		-56.8		48.7	73.		12.1	110-0-01
7.50567	29.	-56.6		47.5		30.5.9	11.2	10.00011
600000	28.9	-56.2		46.3		3.74.6.	19.3	1. 0(.112
80500		6.55-		43.2	574.3	3.13.8	9.3	10, 50013
81006.0	27.	4.55-		1.4.	574.8	363.6	8.2	10000.11
61535.7		1-55-1		43.5	575.3	9:13.4	7.1	10,00010
82000-6		154.7		41.9	575.3	304.3	1.9	10.00.00
825CC	25.7	+		44	576.3	311.9	4.6	1.500000
83000		-54.0		34.8	576.3	325.9	3.3	10.00000
83500+4		-53.5		36.9	577.3	353.0	5.4	100000
841.30.3		-53,2		37.9	577.7	344.9	2.1	10-0000
845.00.0	23.	-52.9		36.9	578.2	297.5	3.1	10.00208
85000	22.	-52,5		36.5		26200	5.1	1.72338
855u0.F	22.	-52.1		35.1		274.7	7.2	1.00004
860000		-51.7		34.3		20:03	8.6	1.755298
86535	21.	1.15-		33.4		50503	10.00	1.557
87035	2	5115-		32.4		249.8	11.5	10.00017
67500+3	27.	\$55		31.9		297.4	11.7	10: 02.367
8800000	19.	-50,2		31.5	5-31-7	294.5	1.00	10003001
88500.0	19.	-49,7		30.5		257.4	4 • 4	10000001
89300.0	14.	2.64-		54.4			4.4	10.55.07
8950000	-	9.67		26.7	593.7			1000000
2.00364	-	148.1		28 .:	584.4			10-90006
90500·2	17.	-47.6		27.3	5 8 5			1.700046
91039	-	-47.1		76.4				43, 00001

	MRN SIGNIFICANT LLVFL DATA	
STATION ALTITUDE 39:9.50 FEET MSL	306023717	GEODETIC COORDINATES
2 NUV. 78 :953 HRS MST	WHITE SANDS	32,40043 LAT 9EG
ASCENSION NO. 717	TABLE IX.	154.37333 LON DEG

GEOPOTENTIAL		ONIN	WIND DATA			TEMPERATURE	
ALTITUDE	DIRECTION	SPEED	S=2		DEW PT DEP		PAFSSURE
DECAMETERS	DEG (TN)	MPS	Sdk	N P S	Dr. C	066 C	MILLICARS
2775.	******	6656	6665-	••• 5666-	* 6	9.91	1.495.1
2564.	294.	5.	-2.		66	P-25-	20.00-1
2403.	307.	• •	-4-		56	3.95-	3
2224.	153.	5.	-5-		66	-56.2	3.78: +1
2.81.	35.	3.	-2-	-7.	66	-62.6	1+303.65
2009.	96.	2.	-0-	• 5.9	66	1.59-	5.423+1
1875.	.83.		-1-	•	56	64.7	7. 5:01
1843.	252.	• •	•	•	**	-68.3	7.38.*1
1652.	246.	13.	•\$	12.	44	1.59-	10000

.. AIND D.TA NOT COMPUTED DUE TO MISSING RAG ALIMUTH AND ELEVATION ANGLES.

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	MANDATORI LEVELS	
STATION ALTHOUGH SYSSONS FEET MAL	51,620,43717	GEODETIC COORDILATES
2 NOV. 78 .953 HRS MST	WHITE SANDS	32,4,043 LAT DEG
ASCENSION NO. 717	TABLE X.	126.37033 LOR DEG

PRESSURE (	ESSURE GEOPOTENTIAL		TEMPERATURE	REL.HUM.		DATA
MILLIBARS	FEET	AIR	DEMPOINT CENTIGNADE	PERCENT	DIRECTION DEGREES(TE)	SPEED NOTS
357.0	5175.	13.5	9.7	78.	153.1	4.9
13	6850°	12.2	8.3	77.	162.9	
759.0	8618.	6.00	7.8	93.	1720:	15.4
700.0	16"89.	3.5	5.5	\$2.	197.7	24.2
S	12478.	3.7	-7.2	45.	226.6	
4	14497.	2	-26.3	2	221.4	29.4
25.0	16784.	-2.5	-26.8	13.	~	26.2
~	14331.	5.6-	-31.2	15.	243.5	
45: • 0	21970.	-151-	-34.5	17.	244.7	37.7
465.0		-21.5	-36.7	24.	2	4+.5
350.0		-27.9	-44.1	27.	247.3	40.9
30.00		-36.8	7.64-	20.	5	
25, • 3		-45.2			25 : • 4	•
2000	42426.	6.85-			245.6	73.7
175.0	43177.	2019-			243.1	78.9
155.0	46294	-64.			247.	59.6
125.0	49975.	-64.2			234.5	42.5
10	54454	1.59-			244.6	5
65.6	58986.	-67.3			248.3	25.0
70	61523.	-64.7			282.0	8.3
6.09	46	. 65			21.4	4.7
8.4.0	928	-62.0			35.7	5.2
C	23	-56.3			352.0	7.4
32.0	34	-56.3			3:7.1	11.8
25.0	592	-53.9			325.3	3.3
211.0	87395.	-500-4			293.4	8007

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

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v a a														OII	0	OP		I S			HE	D :	ro	DI	C		
ORDINATE 3 LAT DE 3 LON DE	PRESSURE MILITARS	2.5.7.4	50.	5.		1+30 5	601.35+1	7.000+1	8	10.37.02	1.25,+2	1.525.42		2 +2		3. 01+2	3.520+2	4			•	•	6.502+2		7.5.3.2	8 22+2	8.530+2
6F05ET1C C0 32.4f54 106.3703	TEMPFRATURE AIR DEG C	, ,	53.	-56.9	-56.3	-62.0	-65.3	-64.7	-67·B	1.59-	-64.2	7.69-	-61.5	5	2.9%-	-36.8	-27.9	-2105			-2.5	2.5	3.7	6.5	A . 9	12.2	13.5
	DEW PT DEP	, ,	. 6	66	66	65	66	66	66	. 66	56	56	66	66	50	~-	91	15	19	2.2	24	28		10	-1.	94	<b>3</b>
JANDATORY LEVELS 3060020717 MHITE SANDS TABLE XI.	M ∑ 1 0 % (/	;	: =		•	-2-		**	10.	12.	- 4-	28.		35.	35.	24.	22.	22.	-8-	13.		-:-	11.	3.	-	-2.	:-
HRN MANDATORY 3060207 WHITE SAN	A		7.7	-4.	-3.	-2.	-2.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	4.	5.	12.	12.	13.	16.	11.	7. 3.	9.	7.	8.	7.	.60		=	1	.8	7.	3.
T MSL MST	WIND DATA		2.	. 9	5.	3.	2.	- N. T.	.5-	13.	22.	31.	41.	38.	31.	25.	24.	23.	-6-1	15.	13.	15.	15.	10.	8.	7.	3.
3949.0G FEE 0052 HRS	DIRECTION DEC (TN)	. 643	325.	357.	353.	36.	21.	282.	249.	247.	237.	247.	243.	246.	250.	253.	247.	251.	245.	244.	235.	221.	227.	198.	172.	163.	153.
STATION ALTITUDE 2 NOV. 78	GEOPOTENTIAL ALTITUDE DECAMETERS		2519.	2403.	222: •	2381.	1969	1975.	1795.	1662.	1523.	1411.	1316.	1232.	1087.	964.	655.	758.	670.	587.	515.	4.45.	386.	320.	263.	2:.9.	158.

95.50 FEET MSL	1130 HRS MST
UDE.	ASCENSION NO. 7

GEODETIC COORDINATES 33.36888 LAT DEG 106.40406 LON DEG

. UATA	REL.HUM. PERCENT	71.0 77.0 74.0 91.0 85.0
SIGNIFICANT LEVEL 3060230007 SW 70 TABLE XII.	TEMPERATURE AIR DEWPOINT EGREES CENTIGRAD	000 000 000 000 000 000 000 000 000 00
SIGNIFI 3 SW T	TEMP. AIR DEGREES	0 1111 1 0 0 0 0 0 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6
YSL T	E GEOMETRIC ALTITUDE S MSL FEET	4395.5 5175.5 6101.9 7581.1 10062.6 10506.8 1222.7.2 12809.5
50 FEET MSL 0 HRS MST	PRESSURE 41LLIBARS	873.9 850.0 819.8 779.3 711.0 700.0 656.7 640.3

PERCEN	0.94	71.0	77.0	74.0	85.0			25.0																			
DEWPOINT CENTICKADE		10.7	6	7.4	3.61	2	14.	ŝ	23.	Ġ.	32.	-	35.	54.	-	8.84-											
AIR DEGREES	0	5	13.0	-	•					.0	5	.0						-	0	1.	3	-	10	6	5	.)	-59.5
ALTITUDE S MSL FEET			61019						-				_	-		-	-	-					54554.4			6044007	71120.1
MILLIBARS	873.9		819.8		•																		100.0			20.0	#3.8

DATA		
	3060230007	SW 70

GEODETIC COORDINATES 33.36888 LAT DEG. 106.40406 LON DEG

3060230007	SW 70			
3.	2 NOV. 78 1130 HRS MST	ASCENSION NO. 7		

REL.HUM. PERCENT					
TEMPLRATURE AIR DEWPOINT DEGREES CENTIGRADE	-59.4		-46.4		-40.8
PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	33.8 70512.5	20.0 87637.2		_	105

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JETIC COOKDINATES 33.36888 LAT DEG 106.40406 LON DEG	INUEX OF KEFRACTION	1.000296	.0002	.0002	1.000282	1.000277	1.000271	000	.000	000	.000	.000	.000	.000	1.000233	.000	000.	.000	.00020	.00019	.00018	.00018	1.000179	1.000176	1.000173	.00017	1.000167	1.000165	00016	1.000159	1.000157
GEODETIC 33.36 106.4u	DATA 1 SPEED 1) KNOTS	6.6	8.6	5.5	10.0	17.1	:	25.5	3	.:	4		3		m	-		ò		ċ	6	6	38.6	2	2	3		31.2		32.6	34.4
	WIND DA DIRECTION DEGREES(TN)		45.0	à	157.0	171.1	175.5	1	170.3	6	190.5	•	201.9		210.5	•	515.1	•	415.5		218.6	220.3	•	•	225.2	227.4	229.6	252.4	534.9	•	257.0
007 1.	SPEEL OF SOUND KNOTS	663.2	667.7		663.1	651.4	660.5	660.0	659.5	650.3	1.769	655.8	654.6	653.5	654.0	651.0	6.649	0.040	647.4	6.749	643.3	644.8	647.8	4.049	2.449	643.1	h.149	639.8		630.0	5.450
UPPER AIR DA 3060230007 SW 70 TABLE XIII.	DENSITY GM/CUBIC MLTER	034.	32.	022.	:	997.3	982.3	1.096	950.2	936.2	922.7	4.606	•	:	869.3		:	:		803.1	:	:				2		707.3	4.769	637.0	670.1
5	REL.HUM. PERCENT		66.7	•	72.9			75.2	•			83.7	87.1	90.6	45.1	83.8	82.7	81.5	4.09	30.8	25.2	24.4			•	•	•	•	29.8		•
T MSL MST	ERATURE DEWPOINT CENTIGRADE	12.7	•	11.1	10.2	4.6	8.7	8.1		7.1					3.9			3	+			7	-15.1	2	-16.6	-	18.	•	0.07-	•	-21.3
FE AS	TEMPE AIR DEGRLES C	6		ė	15.0	3	ż	ċ	i	:				2.9	6.2	2.0	3.8	2.5	2.3	3.1	4.2	3.8	3.0	1.8	ţ.		-2.3	-3.7	i		
TUDE 43	PRESSUR <sub>C</sub>	873.9	870.7	855.3	840.1	825.2	810.4	795.9	781.6	707.4	753.5	739.8	720.4	713.2	700.5	687.2	674.5	662.0	8.649	637.7	625.8	614.2	602.8	291.4	580.1	509.1	558.2	247.6	537.1	550.9	9.010
STATION ALTI 2 NOV. 78 ASCENSION NO	GEUMETRIC ALIITUDE MSL FEET	4395.5			5500.0																			15000.0	15500.0	100000	16500.0	2	75	1600000	71

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	UPPER AIR DATA	
ITUDE	3060230007	GEODETIC COORDINATES
2 NOV. 78 1130 HRS MST	SW 70	33.36888 LAT DEG
ASCENSION NO. 7		106.40406 LON DEG

1	INDEX OF REFRACTION	1.000154	1.000152	1.000149	1.000146	0014	17	0013	13	3	1.000132	1.000130	1.000128	00012	1.000124	1.000122	.00012	-	1.000116	•	.00011	.00010	.00010	1.000105	.00010	1.000102	.00010	600000	1.000096	1 00000
	SPEED KNOTS		43.3	45.2			6	50.9	3	.0	0	5	0	1.	-	8	d	73.7	t	t	3	5	73.1	t	O		0	3	84.0	Ľ
- Contract of the contract of	UIRECTION SP DEGREES (IN) KN	•	230.7	5	0	:0	249.5	252.1	+	54.	253.8	250.0	248.5	540.9	245.0	245.7	246.1	245.0	243.1	241.1	238.9	237.5	237.1	230.9	437.0	2,7.2	37.	57.	233.2	7
	SPEED OF SOUND ANOTS	633.1	3	3	5	~	0		623.0	624.1	650.5		617.4		61+.4		611.4	609.7	603.3	4.709	4.009	6.409	603.4	8.109			597.2		. 46	
	DENSITY S GM/CUBIC MATER	9.000	6	648.6		629.4	619.6	608.9	599.5	590.3	581.2	572.4	563.0	554.9	540.0	537.2	523.7	520.7	511.9	502.6	493.7	485.5	477.5	469.0	461.6		446.7		431.1	
	REL.HUM. PERCENT	32.4	33.0	33.0	33.0			33.0					41.6				62.4	•	51.3			32.8				32.2			**6.4%	***
	ERATURE DEWPOINT CENTIGRADE	1-22-1	-23.6	-24.6	-25.5	4.02-	-27.4	-23.3	0.67-	-29.6	-30.2	-30.9	-31.6	-32.0	4.10-	-31.1	-31.9	-34.9	-26.2	-39.1	-41.8	143.0	-++·1	-45.2	-45.3	-47.5	•		-52.6	U
	TEMPER AIR DI DEGREES CEI	2.61	-10.5	-11.6	-12.6	-15.7	-14.8	-15.8	-17.0	-18.3	-19.6	-20.8	-22.1	-23.4	-24.5	-25.7	-26.9	-26.3	-29.4	-30.1	-30.9	-32.1	-33.3	-34.5	-35.7	-30.9	-38.1	-39.2	-40.3	-11.1.11
- 0	PRESSURE	2011	4.7.2	487.4	477.7	406.3	459.1	450.0	441.0	432.0	423.3	414.7	400.3																200.5	
	GEOMETRIC ALTITUDE MSL FEET	13000.0	19500.0	2000000	<ul><li>40500.0</li></ul>	21000.0	21500.0	22000.0	64500.0	< 300000	<3503·0		0.00547	<5000°0	0.00002	2000000	40500.0	<7000.0	47500.0	26000.0	28500.0	0.000E>	2.3560.0	3000000	30500.0	31000.0	0.00516	32666.0	32500.0	4.000.0

AT LLAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

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IC COORDINATES	INCEX OF REFRACTION	1.000091	.0000H	. COUOB	80700	.0000	.00008	1.000082	1.000080	1.000079	.00000	.0000	1.000075	.000u	1.000072	0000	1.000069	9000	1.000066	.0	1.000063	.00000	.00006	0005	-00000	.00005	.00005	.00005	.00005	00000	.0000
6E0DETIC 33.3.	SPEED KNOTS	91.7	98.6	5	+	123.1	7			S	2	.0	0	t	7.	37.	36.	+	130.3	ò	6	13.	0	6	3	89.0	9.48	2	81.4	0	-
	WIND DATA DIRECTION SI DEGREES(TN) KI	241.4	242.9		245.8	247.2		•	9.647			5.645		248.5	248.2		2.7.5	246.6	4.942		245.3	9.447	•	242.3	•	2+0 • 1	•	•		37.	33.
UATA 007	SPEED OF SOUND KNOTS	590.3	568.9		580.2					573.0			574.0						569.4		563.2		•			565.3	565.1	3	éu.	600	500.5
UPPER AIR D. 306023000 SW 70	DENSITY GM/CUBIC METER	408.7	401.4	to		80.	-	67.	61.	54.	40.	41.	35.	CI	22.	14.	307.9	.10	. 46	33.	201.7	75.	9	9	S	ഗ	46.	3	33.	27.	W
	REL . HUM. PERCENT	13.1**	9.1**	5.2**	1.2**																										
T MSL MS F	TEMPERATURE AIR DEWPOINT DEGREES CENTIGHADE	-60.5	-64.1	0.69-																											
4.95.50 FEET 1130 HRS MS	TEMP AIR DEGREES	-43.5	-44.0	-45.7		0.84-	2.64-	-50.5	-51.8	-53.0	-54.3	-55.2	-56.1	-57.0	-57.8	-54.2	-58.7	-59.1	-29.5	-60.0	+-09-	6.09-	-61.3	-61.7	i	•	-62.7	•	5	-61.6	•
11TUDE 45	PRESSURE MILLIBARD	269.4	2	-	251.8	ò	0	÷	5	;	6	;	ò	3	*	;	*	0	•	•	·	:	•	59.	50.	54.	40	'n	# .	138.1	. +0
STATION AL 2 NOV. 78 ASCENSION	GEOMETRIC ALITUDE MSL FEET	24000.0	S	25000.0	500.	-	-	-	-	-	34500.0	-	-	40000+	100	41000.0		45000.0	-		_	-		000	•	000	000	7000	566.	4600000	8500.

AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION. \*

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STATION ALTITUDE 4.395.50 FEET MSL 2 NOV. 78 1130 HRS MST ASCENSION NO. 7

UPPER AIR DATA 3060230007 SW 70

GEODETIC COORDINATES
33.30888 LAT DEG
106.40406 LON DEG

										F	RO		001	PY	N	RU	IS	HE	D :	ro	DD	C		_	_					
INDEX OF REFRACTION	1.000048	1.000047	.000	1.000045	0	1.000043	1.000042	1.00001	1.000040	.000	.000	.000	.000	1.000036	.00003	.00003	~	.00000	.00003	.00003	.0000	M	.00000	.0000.	.0000	.00002	.00002	.00000	300	200
SPEED ANOTS	31.7	8	10	8	60.7	8	9	c	33.6	0	26.5	23.6	di	-	3	8	15.3	t		6.5				3	15.9	6	ci	3	t	
wind Data UIRECTION S DEGREES(IN) A	239.1		カ・カカフ		250.2		256.0	200.1	25000	455.0	252.0		247.0	245.6	242.3	240.3	233.0	524.9	234.0	230.0	245.4	50.9	38.1	0	5.74	44.0	45.6	40.4	2.05	9.50
SPEEU OF SOUND NIOTS	565.4		564.5	504.4			560.0	565.0							563.0		554.2			557.9			550.7		554.9	561.2				504.4
DENSITY S	17.	12.	07.	02.	196.2	91.	7	:0	3	in	171.9	3	10	O	150.8	53	149.5	45		6	0		29.	.0	122.4		:	i	*	100.0
REL . HUM. PERCENT																														
PERATURE DEWPOINT CENTIGNADE																														
TEMPER AIR DEGREES CE	-62.2	N	-63.2	3	-	-61.4	-62.1		-63.5	-64.2	6.49-	-65.6		-66.3	-000-	6.09-	-67.1	-67.4	-67.7	-63.0	-63.3	-68.6	-69.9		-67.3	-65.6		6.49-	6.+9-	P. #9-
PRESSUR <sub>E</sub>	131.5		125.2		119.2				106.0	105.3		100.3	•	95.4	95.0	•	7.20		34.1	95.0		•	ò	÷	72.3	3		-	ż	•
SEUMETAIC ALITUDE MSL FEET	49000.0	49560.0		0.00000	0.00010	51560.0	9400000		0.000cc	53560.0	17	0.00540 3	0.00000				0.00076						0.00000			-005	-0002		0.00000	500.

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STATION ALIITUJE 4595.50 FEET NSL 2 NGV. 78 1130 HRS MST ASCENSION NO. 7

UPPER AIR UATA 3060230007 SW 70

GEODETIC COOKDINATES 33.36688 LAT DEG 106.40406 LON DEG

			F	RO		X	Y.	N	RA	LS	HE	0 :	ro	עשע	Ü	-														
INDEX OF REFRACTION	.00002	.0000	C	.00002	.00002	0	.0000	.00001	.00001	.00001	.00001	.00001	.0000	.00001	.0000	.00001	.00001	.00001	1.000015	.00001	.00001.	0000	.0000	.0000	.00001	.0000	.00001	.00001	000	.00001
DATA SPEED NNOTS	ŧ	t	t	5	à	21.7	0	6	7	5	ţ.	3	2	'n	3	t.	9	7	-	·.	ဆံ	•	ó	•	•	m	•	ä	•	•
WIND DA ULKECTION DEGREES(IN)	54.5	9.00	57.9	57.0	56.1	54.0	52.3	8.64	47.5	45.1	41.9	36.3	7.40	31.0	29.7	29.8	6.67	30.5	31.4	32.2	33.0	33.7	34.4	3005	35.1	34.0	3.4.6	33.5	33.3	33.1
SPEED OF SOUND KNOTS	Ŋ	562.	562	564.	565.	563	505.	565.	565.	503.		505	560.	500.	569.	569.	567	564	559.5	569.	569.	569	564	509	569.	569	570.	571.	572.	573.
DENSITY GM/CUBIC MATER	04.		66	-	-	91.0	-						-		•					•		•	•	•	•	•	•	•	•	•
REL.HUM. PERCENT																														
PERATURE DEMPOSINT CENTIGRADE																														
TEMPERAT AIR DEA DEGREES CENT	-64.7	9.49-	-64.5	4.49-	-64.3	-64.2			0.49-	3	3	i	÷	•09	29.	56.	59.	*	-59.5	59	59	*	23		6	6	ė	'n	57.	ò
PRESSURE MILLIGARS	m					55.0																								
SEUNETHIC ALI ITUDE NSL FEET	0.00000	90	000	000	-	6.00500		•	•	-	-	09560	.000	1500.	.000	500	.000	500.	1300000	\$500.	,0001	1200	Suco.	560.	0000	5500.	7000	1200	9000	10000

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E 6	enerede i	-				0	6	6	6	6	6	8	8	8	8	80	~	1	1	1		7	9	2	,o	·c	9	9	9	2	2
ETIC COORDINATE 33.36888 LAT DE 66.40406 LON DE	INJEX OF REFRACTION	1.00001	0	0	00000	00.			1.00000	1.00000	1.000000			-		1.000008	-		1.000007	1.000007	1.00000	1.00000		1.000006		-	1.000006	.00	1.00000	1.00000	1.00000
GEODETIC 33.3 106.4	SPEED KNOTS	10.5	11.2	3			3		13.9		•	•		15.7	•	13.0	•	•	5.9			4.9	6.2	•	-			•	2		6.2
0 5 4 0 4 0 5 0 0 0 0	WIND DATA DIRECTION SP DEGREES(IN) KN	32.9	37.8	5	40.3	8.64	53.1	56.4	55.1	53.0	50.0	36.6	23.1	•	C.+	354.8					335.3			6.67		40.4		24.7	•	3	113.3
DATA 107	SPEED OF SOUND ANOTS	574.3	574.7	570.1		575.	570.				577.0	574.6	573			579.5	579	560	584.0	589	581	561	582.0	585	584.	583.			584.		584.9
UPPER AIR DAT 3060230007 SW 70	DENSITY GM/CUBIC METER	48.1		45.8	44.0	43.6	44.5	41.5	40.4	39.5	36.5	37.5	30.6	35.7	34.9	34.0	33.2	32.4	31.0	30.€	30.1	27.4	25.7	28.0	27.3	20.7	25.0	25.4	24.8	24.2	23.6
,	REL.HUM. PERCENT																														
IT MSL MST	TEMPERATURE IR DEWPOINT REES CENTIGRADE																														
95.50 FEET 1130 HRS MS	TEMF AIR DEGREES	-55.8	S	-55.2	ທ	ഗ	1-24.4	-54.1	-53.9	-53.6	-53.3	-53.0	-52.7	-52.5	-52.2	-51.9	-51.6	-51.4	-51.1	-50.8	-50.5	-50.5	-50.0	1-64-	た・のカー	-49.1	6.64-	9.84-	-48.3	-48.0	-47.7
TUDE 4.5	PRESSUR <sub>C</sub>	30.0	29.3	59.6	28.0	27.3	20.1											20	0.7	77		10	18	17.9	17.	17.	10.	16.		15.	15.
STATION ALII 2 NOV. 78 ASCENSION NO	GECMETRIC ALTITUDE MSL FEET	79000.0	79500.0	900000	902000	91000.0	0.00518	650000	92530.0	0.00000	0.00550	0.00000	0.03540		0.00950 25	0.00090	0.00000	0.00020	0.00020	0.00000	98500.0	0.00060	0.00068	9000000	202000	91000.0	91500.0	92000.0	92500.0	730000	93560.0

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STATION ALII 2 NOV. 78 ASCENSION NO	TUDE	4.395.50 FEET 1130 HRS MS	ET MSL MST		UPPER AIR DA' 3050230007 SW 70	DATA 107	0 10 75 6	GEODETIC COOM 33.30888 106.40406	C COOKDINATES 36888 LAT DEG 40406 LON DEG	
GEUNETRIC ALTITUDE NSL FEET	PRESSUR <sub>C</sub> MILLI3ARS	TEMPE AIR DEGREES C	PERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DAT UIRECTION DEGREES(TN)	TA SPEED KNOTS	INDEX Or REFRACTION	
94,000.0	14.9	-47.5				565.3	164.4	6.3	1.000005	
0.00544	14.6	-47.2			3	545.6	93.		.00000	
95000.0	14.3	6.94-			22.0	586.0		14.8	0000	
95500.0	+	9.04-			-	500.3	12.	17.0	0	
900000€	13.6	-			0	566.7	18.	7	.000000	25
76500.0	."				0	587.1	N	18.6	.00000	M.
97000.0	3	-45.8				587.4	.62	6	*000000	
17500.0	N				3	587.8	2500.5	9	+000000	W.
3	V				6	580.1	242.5	0	.00000	
-	12.5				3	585.2	243.5	•	*000000	4
00055	11.9					583.0	455.1	0.	+000000	
-	11.6	5			7	587.7	258.4	သ	1.000004	
-	11.4				2	587.5	204.4	-	1.000004	TIES.
-	11.1	-45.9			-	587.2	270.1		1.000004	, 1
-	10.9				.5	587.0	574.9	S.	1.000004	V 1
:	10.6					560.6	200.3	+	1.000004	J
÷	10.4	-45.9			6	587.5	200.1	+	1.000004	•
•	10.1	6.44-			15.5	583.6	4.772	t	1.000003	-
:	6.6	-44.1			ů	569.0	200.9	9	1.000003	_
:	4.6	-43.9			t	589.9	201.7	17.6	1.000003	
-		-43.6			14.4	590.	256.3	8	1.000003	
104560.0	D.0	++5+				590	251.6	8	1.000003	
-		-43.2			13.7		t.7+5	6	1.000003	
-	6.0				13.4	591	45.		1.000003	
-		-42.7			13.1	591.			1.000003	
-					12.8		51.	19.8	1.000003	
<b>07000</b>	•	-42.2			14.5	വ	55.	6	1.000003	
·03570		-41.9			12.2				.00000	
900	7.9	-41.7			11.9				1.000003	
<b>19200.</b>		-41.5			11.7				.00000	

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GEODETIC COOMDINATES 33.36888 LAT DEG 106.40406 LON DEG	INDEX OF REFRACTION	1.000003
33. 33.	SPEED KNOTS	
	GECMETRIC PRESSUR. TEMPERATURE REL.HUM. DENSITY SPEED OF WIND DATA ALIITUDE AIR DEWPOINT PERCENT GM/CUBIC SOUND DIRECTION SPEED MSL FEET WILLIBARS DEGREES CENTIGRADE METER KNOTS DEGREES(TN) KNOTS	
A 140	SPEED OF SOUND KNOTS	11.4 595.3
UPPER AIR DAIA 3060230007 SW 70	DENSITY GM/CUBIC METER	11.1
•	REL.HUM. PERCENT	
ET MSL MST	PERATURE DEWPOINT CENTIGRADE	
395.50 FEET M. 1130 HRS MST	TEM AIR Degrees	-41.2
IITUDE 4.59	PRESSUR <sub>E</sub>	7.6
STATION ALIITUDE 4.95.50 FEET 2 NOV. 78 1130 HRS M ASCENSION MO. 7	GECMETRIC ALTITUDE MSL FEET	109000.0

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\*\* WIND DATA NOT COMPUTED DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

		PEROM COURT NAME	POLITICAL
GEODETIC COORDINATES 33.35888 LAT DEG 106.40406 LON DEG	PRESSURE MILLIBARS	7.300+0 1.000+1 1.050+1 2.000+1 3.000+1 4.380+1 5.000+1	7.430+1
6E0DETIC 33.3 106.4	TEMPERATURE AIA DEG C	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	-69.2
	CEP		
A T A	DEW PT	~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	<b>6</b> 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
MRN SIGNIFICANT LEVEL DATA 3060230007 SW 70 TABLE XIV.	A S N S S	4	j:
MRN SIGNIFIC 3060 SW 70 TABL	WIND DATA D N-S MPS	* * * * * * * * * * * * * * * * * * *	<b>.</b> ÷
T MSL MST	WIND SPEED MPS	9999.** 11. 5. 7. 7.	12.
4.95.50 FEE	DIRECTION JEG (TN)	9999.** 272. 283. 245. 320. 33. 45.	40.
STATION ALTITUDE 4,395.50 FEET 2 NOV. 78 1130 HRS MS ASCENSION NO. 7	GEOPOTENTIAL ALTITUDE DECAMETENS	3430. 2117. 20117. 2085. 2059. 2160. 1873.	1837.

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MANDATORY LEVELS 3060230007	SW 70 TABLE XV.
O FEET MSL	HRS MST
4.395.5	1130
STATICN ALTITUDE	2 NOV. 78 1130 HRS MST ASCENSION NO. 7

GEODETIC COOKDINATES
33.36888 LAT DEG
106.40406 LON DEG

IND DATA	UIRECTION SPEED	STONY KNOTS
		DEGREE
KEL . HUM	PERCENT	
PERATURE	AIR DEMPOINT PE	CENI ISKADE
TEMF	AIR	DEGREES
GEOPCTENTIAL		FEET
PRESSURE		MILLIBARS

PRESSURE 6	GEOPCTENTIAL	TA	EMPERATURE	KEL . HUM.	O ONIW	A
MILLIBARS	FEET	DEGREES	CENTIGRADE		DEGREEST	N) KNOTS
850.0	5174.	15.9	10.7	71.		
800.0	6853.	12.5		70.	177.3	20.0
750.0	6620.		9.9	6.1.	108.3	3
700.0	10497.	6.2	3.9	ė.	210.2	3
650.0	12477.			.19	215.4	7.
0.009	14600.			20.	242.1	0
550.0	16892.	1.5-	-18.9	29.	231.9	
200.0	19330.	-10.5	23.	35.	236.8	
420.0	21969.	-15.8		33.	252.1	
0.004	24042	-23.1	32.	40.	247.2	71.1
350.0	25005.	-30.5		40.	540.9	
300.0	31544.	-30.4	-48.6	34.	237.3	
250.0	35581.	-47.1			246.2	10.
200.0	46300.	-57.7			240.5	7.
175.0	43055.	-60.1			245.8	. 42
150.0	46190.	-65.9			239.6	9
125.0	49960.	-63.2			4.442	3
100.0	54389.	-65.7			249.8	3.
90.0	58310.	-68.3			C+4+3	5.6
70.0	61446.	-65.1				0
0.09	64520.	9.49-			57.3	t.
90.05	6318o.	-63.9			5	16.3
-	72744.	-59.5			31.4	1.
-	72671.	9			3	5
-	82407.	-53.6			53.7	÷
20.0	67234.				322.0	:0
-	93424·	-47.5			149.1	
-	102270.	2.44-			i	15.6

\*\* AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

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10 (0 (0	110											E Y						LI M			RA	CI	IC	AB	M	1					
COORDINATES 5888 LAT DEG 0406 LON DEG		PRESSURE	MILLIBARS	1.000+1	1.500+1	2.000+1	2.500+1	3.000+1	4.000+1	2.000+1	1+0000-9	7.000+1	8.000+1	1.000+2	1.250+2	1.500+2	1.750+2	2.000+2	2.500+2	3.000+2	3.500+2	4.000+2	4.500+2	5.000+2	500+	6.000+2		7.000+2	7.500+2	8.000+2	8.500+2
GEODETIC COOM 33.35888 106.40406	TEMPERATURE	AIR		-44.2	-47.5	-51.0	-53.6	-55.8		-63.9	9.49-		-63.3	-65.7	-63.2	-65.9	-60.1	-57.7	-47.1	-36.4	-30.5	-23.1	-15.8	-10.2	-3.4	2.8		6.2	4.4	12.5	15.9
CALL PART PART OF STREET	8	DEW PT DEP		66	- 56	66	66	66	66	65	66	66	66	66	66	66	66	66	66	10	60	60	13	13	10	18	07	05	0.3	40	0.5
MANDATORY LEVELS 3060230007 SW 70 TABLE XVI.		M 2 1 0 3 0	27.5	•	-7.	۲.	•••	-5-	•	••	-11.	-1.	1.	11.	34.	38.	50.	65.	55.	35.	34.	34.	25.	10.	13.	13.	11.	7.	•	THE NAME OF THE OWNER,	-2.
E N.	DATA	SIN	O L	-0-	3.	-2.	-4-	-5-	-0-	-6-	-7-	.7-	-1 200cm		16.	22.	26.	26.	24.	22.	19.	14.	9	12.	10.	15.	16.	15.	11.	13.	
. MSL	MIND	SPELD	N L	. 5	3.	3.	7.	·o	6	•	15.	10.	1.	14.	36.	***	. 49	71.	.09	.74	30.	37.	20.	24.	10.	20.	19.	14.	11.	15.	••
4.95.50 FEET W 1130 HRS MST		DIRECTION	200	273.	149.	322.	54.	33.	31.	46.	58.	45.	244.	250.	544.	240.	246.	248.	246.	237.	241.	247.	252.	237.	232.	222.	215.	210.	186.	177.	133.
STATION ALIITUDE 4.95.50 FEET 2 NOV. 78 1130 HRS MASCENSION NO. 7	GEOPOTENTIAL	ALTITUDE	UECAME IENS	3117.	2948.	, \$059.	2515.	2398.	2217.	.076.	1967.	1675.	1793.	1058.	0 1521.	1408.	1312.	1229•	1085.	901.	654.	757.	670.	-689	515.	*0**	.090	320.	203.	-607	156.